UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE:

MIRENA IUS LEVONORGESTREL-RELATED PRODUCTS LIABILITY LITIGATION (NO. II)

17-MD-2767 (PAE)
17-MC-2767 (PAE)

This Document Relates To All Actions

PLAINTIFFS' MEMORANDUM OF LAW IN SUPPORT OF MOTION TO EXCLUDE GENERAL CAUSATION EXPERT TESTIMONY OF NANCY J. NEWMAN, MD

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STANDARD OF REVIEW

Under Federal Rule of Evidence 702, a witness must be qualified to offer opinion evidence by "scientific, technical, or other specialized knowledge" that will "help the trier of fact to understand the evidence or to determine a fact in issue." Fed. Rules Evid. R. 702. "The subject of an expert's testimony must be 'scientific . . . knowledge.' The adjective 'scientific' implies a grounding in the methods and procedures of science. Similarly, the word 'knowledge' connotes *more than subjective belief or unsupported speculation*." *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589-90 (1993) (emphasis added); *see also* Omnibus Brief at Section II.

In this inquiry regarding the admissibility of Dr. Newman's opinions, the Court should consider the indicia of reliability identified in Rule 702, namely: (1) that the testimony is grounded on sufficient facts or data; (2) that the testimony 'is the product of reliable principles and methods'; and (3) that 'the witness has applied the principles and methods reliably to the facts of the case.'" *Amorgianos v. Amtrak*, 303 F.3d 256, 265 (2d. Cir., 2002) (quoting *Campbell v. Metropolitan Prop. & Cas. Ins. Co.*, 239 F.3d 179, 184 (2d Cir. 2001)). "[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). Even if an expert's methodologies satisfy the *Daubert* standard for admissibility, the court must still determine whether that evidence actually supports the expert's conclusions. *Astra Aktiebolag v. Andrx Pharmaceuticals, Inc.*, 222 F.Supp.2d 423 (S.D.N.Y., 2002), *citing* Joiner, 522 U.S. at 146, 118 S. Ct. 512. The court must reject expert testimony where "there is simply too great an analytical gap between the data and the opinion proffered." *Id.*; *Graham v. Playtex Prods.*, 993 F.Supp. 127, 132 (N.D.N.Y. 1998) (noting that *Joiner* applies *Daubert* gate-keeping to conclusions as well as methodology.). When an expert's opinion does

not reliably follow from the data or studies known to the expert, and the methodology used, "*Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony." *Amorgianos*, 303 F.3d at 265-66 (citing *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 153 (3d Cir. 1999)). Furthermore, an expert's opinion is inadmissible if it "is connected to existing data only by the *ipse dixit* of the expert," for a "court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *Joiner*, 522 U.S. at 146; *Figueroa v. Boston Scientific Corp.*, 254 F.Supp.2d 361 (S.D.N.Y., 2003).

Furthermore, Plaintiffs' hereby adopt and incorporate by reference in its entirety Plaintiffs' Omnibus Motion to Exclude Testimony of Defendants' Expert Witnesses (hereinafter, "Plaintiffs' Omnibus Motion").

ARGUMENT

I. Dr. Newman's Opinions on Mirena's Causal Relationship with IIH are Scientifically Unreliable, Do Not Aid the Fact-Finder, and Are Inadmissible.

Dr. Newman says the cause of IIH is unknown. Therefore, she precludes herself from offering any admissible opinion on the subject of Mirena's causal relationship with IIH. She does not know the cause of IIH, and therefore, has no information that will aid the fact finder. Any information Dr. Newman has on the subject of Mirena's causal relationship with IIH is derived from subjective and *ipse dixit* interpretations documents she read after engaged as a defense expert in this case. Before she was so engaged by Defendants' counsel in 2014, the whole issue upon which she proposes to opine was not of scientific interest to her, and her opinions are based on documents that she has no specialized expertise in interpreting. She is not an epidemiologist, a toxicologist, nor a pharmacologist. She has no specialized expertise on the pharmacokinetics of Mirena nor the mechanisms that cause IIH. Her opinions on Mirena's causal association with IIH should be excluded. This is emphasized by her failure to articulate any methodology she used to

reach an opinion on Mirena's causal association with IIH or even define the alleged area of expertise for which the defense hired her.

Dr. Newman was engaged as an expert for Defendants in 2014. *See* Ex. A, Deposition of Dr. Newman, Feb. 8, 2018 at 17:7-9. She can only define her expert assignment vaguely as a review the evidence of an association between Mirena (*i.e.*, its active hormonal component, levonorgestrel) and IIH, and her methodology as a review of the "body of the evidence." *Id.* at 49:18-25, 50:5-19 and 51:4-14. It appears that before Defendants engaged her, she had given no significant thought to Mirena's causal relationship with IIH. *See Id.* at 167:3-170:25. Dr. Newman's review of the "body of evidence" was confined to a review and interpretation of publications for which she had no identifiable expertise. *See Id.* at 51:4-14. She is not an epidemiologist, a toxicologist, or a pharmacologist. What she knows of Mirena's causal relationship with IIH she has primarily read and interpreted in the context of litigation. To the extent the fact-finder needs any interpretive guidance of the documents provided to Dr. Newman, she fails to demonstrate the expertise required to do so.

A. Dr. Newman Relies on Her Review of Select Published Literature to Support Her Causation Opinion

At no point in her report or during her deposition did Dr. Newman, a self-proclaimed expert on "Bradford Hill,"[1] attempt to explain the application of the Bradford Hill criteria or any other methodology that she used to reach her conclusion that Mirena cannot cause PTC. Instead, her opinions are based on subjective ipse dixit conclusions. In fact, Dr. Newman agreed that in some circumstances, causation can be determined in the absence of case-control studies. *Id.* at 176:25-177:8. She further explained that dechallenge evidence is confounded and inconclusive if

[1] *See Id.* at 129:22-130:7 and 225:23-226-16. Dr. Newman explained that she gained her expertise in the Bradford Hill criteria during the two months prior to her deposition of February 8th, 2018.

the patient has received treatment, such as the lumbar puncture used to arrive at the PTC diagnosis or the administration of Diamox (acetazolamide). *Id.* at 177:9-179:13 and 187:4-24. She testified that there is no "accepted" pathophysiological explanation for any exogenous agent that causes increased intracranial pressure. *Id*. at 189:1-4.

Furthermore, when asked about several pieces of published literature that identified levonorgestrel or Norplant among exogenous factors associated with PTC, including some of which she co-authored, Dr. Newman repeatedly disregarded them with no explained methodology for so doing. For example:

- In the Walsh & Hoyt, 6th Edition textbook of Neuro-Ophthalmology co-edited by Dr. Newman and published in approximately 2005, Dr. Deborah Friedman, a recognized expert in the field of PTC, and who was coincidentally retained by the Defendants as a consultant, included levonorgestrel in a list of exogenous factors associated with PTC at Chapter 5, entitled "Papilledema" at table 5.5. *See* Ex. B, Friedman, DL. Papilledema. In Walsh and Hoyt's Clinical Neuro-Ophthalmology. (chapter 5 p.237-281) Lippincott Williams & /Wilkins, Philadelphia. Dr. Newman indicated that, although an editor of this textbook, she was not the author of the chapter, and dismissed it as simply having likely been written in 2004. *See* Ex. A at 74:3-19.
- In an article published by lead author Dr. Friedman in 2003, she also listed levonorgestrel as being associated with PTC. *See* Ex. C, Friedman, DL et al. Doxycycline and intracranial hypertension. Neurology 2004; 62:22979-9. Dr. Newman dismissed it as simply having likely been written in 2003 or earlier. *See* Ex. A at 77:4-78:23.
- In a review article published by Dr. Friedman in 2005, she wrote "In contrast to oral contraceptives, there is a well-established relationship between PTC and levonorgestrel-

releasing implants," that "[h]eadache is a common adverse effect of levonorgestrel," and further, that "[p]atients developing headaches or visual disturbances while using it should be evaluated for fundoscopic evidence of PTC." *See* Ex. D, Friedman, DL. Medication-induced intracranial hypertension in dermatology. Am J Clin Dermatol 2005: 6(1):29-37. Dr. Newman asserted that the evidence cited by Dr. Friedman were merely case reports and were part of the "body of evidence" that she reviewed. Ex. A, Newman 2018 Dep. at 79:1-84:13. However, Dr. Newman failed to give any thought or credence to Dr. Friedman's opinions in this 2005 review article.

- In another article published by Dr. Friedman in 2007, she again mentioned the "levonorgestrel contraceptive system" as one of many exogenous agents for which "the best evidence exists" for association with PTC. *See* Ex. E, Friedman, DL. Idiopathic intracranial hypertension. Current Pain and Headache Reports 2007; 11:62-8. Dr. Newman presumed that Dr. Friedman was referring to Norplant in this article.[2] *See* Ex. A, Newman 2018 Dep. at 84:14-91:24. Dr. Newman further presumed that Dr. Friedman "has changed her mind" about the association between levonorgestrel and PTC since Dr. Friedman was involved in the IIHTT (Idiopathic Intracranial Hypertension Treatment Trial), and levonorgestrel use was not an exclusion criteria in the study by that group to assess the effectiveness of acetazolamide as a treatment for PTC. *Id.* Notably, Dr. Newman never discussed with Dr. Friedman her disagreement with this article. *Id.*
- In another article published in 2011 by Dr. Beau Bruce, of which Dr. Newman and Dr. Valerie Biousse are co-authors, the role of sex hormones in PTC is discussed. *See* Ex. F, Bruce BB, Biousse V, Newman NJ. Update on Idiopathic intracranial hypertension. Am J

[2] Regardless, Dr. Newman acknowledged that the levonorgestrel contained in Mirena is the same substance as the levonorgestrel contained in the Norplant and Jadelle subdermal implants. Id. at 42:21-43:15.

Ophthalmol 152:163-169, 2011. Together with Dr. Newman, Drs. Bruce and Biousse, both formerly fellows of Dr. Newman and also physicians in her practice group at Emory when this article was written and published, proposed a list of medications proposed to cause or precipitate PTC, including levonorgestrel. Ex. A, Newman 2018 Dep. at 95:13-101:15.

It is evident that Dr. Newman, who has charged Defendants in excess of $100,000.00 thus far for her opinions and testimony in this litigation,[3] simply has not considered what is really the full "body of evidence" regarding levonorgestrel and PTC, which includes publications by recognized experts in her field of neuro-ophthalmology, physicians whom she has trained, and even herself.[4] By failing to account for evidence that is counter to her opinion that there is no association between levonorgestrel and PTC, it is obvious that she has not conducted her examination in any reliably methodological manner. A review of selected publications of the "body of evidence," including the blatant disregarding of publications from that "body of evidence" that do not meet Defendants' needs in this litigation, does not equate to a method that passes muster under *Daubert* or under any case law from the Second Circuit or the Southern District of New York.

B. Dr. Newman Employed a Differential Diagnosis to Opine that Minocycline "Precipitated" PTC in a Young Obese Woman of Childbearing Age

In her report, Dr. Newman asserted that well-designed epidemiologic studies do not support exogenous agents, including antibiotics and contraceptives, as independent causes of

[3] *See* Ex. H, Various correspondence from Dr. Newman regarding her time and billing for working on the Mirena litigation.

[4] *See also* Ex. A at 163:6-166:18, Ex. I, "Source 12" Documents produced by Defendants in this litigation, bates stamped MIR_IIH_AE_Source12_00000001 to -43, and Ex. K, Export Report of Nancy J. Newman at Appendix B. This incomplete document, which Defendants' counsel produced as part of a "sampling" of adverse event source files, describes a report, presumably by a physician or other healthcare provider, of a "patient" who used Mirena and suffered PTC. Dr. Newman could not have reviewed this piece of the "body of evidence," as neither it, nor any adverse event reports or source files, were provided to her for her consideration.

IIH. Ex. K, Newman Rpt. at 4. However, she testified that the presence of confounders does not prevent determining that an exogenous agent is a cause of PTC, and that confounders can mask causation. Ex. A, Newman 2018 Dep. at 185:24-186:24 and 124:8-15. Because the Defendants and their experts, including Dr. Newman, assert that characteristics of some patients who use Mirena are "confounders," such as being female, of childbearing age, and overweight, obese, or having recently gained weight, they are quick to dismiss the potential for levonorgestrel, the exogenous agent in Mirena, to be a cause, contributor, or precipitator of PTC. Instead, they have chosen to allow the confounders to mask the possibility of causation. Indeed, these confounders or risk factors can render "susceptible" any patients who use Mirena, and, according to Dr. Newman, it is possible that an exogenous substance can "trigger" PTC symptoms in a susceptible patient. *Id.* at 123:13-134:16.

In fact, Dr. Newman previously testified as an expert in one other case regarding PTC being caused by an exogenous substance (*See generally, Id.*, at 123-154; *see also* Ex. J, Deposition of Nancy J. Newman, March 10, 2009 in *Weilbrenner v. Teva Pharmaceuticals*[5]). In *Weilbrenner*, she employed a differential diagnosis method to opine that the exogenous agent minocycline "triggered" or was a "precipitating factor" for an obese young woman of childbearing age – a "susceptible" patient - to suffer IIH. *See* Ex. J, Newman 2009 Dep. and Ex. A, Newman 2018 Dep. at 123:13-134:16, 148:1-24, and 145:9-12. Dr. Newman concluded that minocycline "more likely than not" triggered the Plaintiff's IIH. Ex. A, Newman 2018 Dep. at 123:13-134:16. In *Weilbrenner*, in addition to the confounders of being female and obese, the Plaintiff also received a lumbar puncture to diagnose her IIH, another lumbar puncture a few weeks later as a treatment, as well as acetazolamide medical treatment. *Id.*, at 137:5-14. The

[5] The full name of the case is *Katelyn Weilbrenner, a Minor and Diann Courtoy, Individually and as Natural Mother and Next Friend of Katelyn Weilbrenner v. Teva Pharmaceuticals, USA., Inc.*, Case No.: 7:08-CV-23, M.D. Ga.

exogenous agent, minocycline, was also withdrawn. *Id.* In fact, "the only thing at play is that she had stopped the minocycline," which, together with the Plaintiffs' IIH having not recurred despite her presumed continued obesity, largely accounted for Dr. Newman's opinion that minocycline precipitated the IIH in that case. *See Id.*, at 145:17-146:3.

Referring to her testimony in *Weilbrenner*, Dr. Newman characterized her opinion that minocycline could be a precipitant that triggered PTC in a susceptible patient as a "theory," and that it was more likely than not that this occurred. *Id.*, at 133:7-134:11. Even further, in *Weilbrenner*, she said "[t]hings can happen in combination. Things can be precipitated in the susceptible individual. And I think that's a very well-proven and very often the scenario in a lot of situations especially when we're talking about exogenous drugs." *Id.*, at 148:1-20. In one of Newman's own studies, it was demonstrated that non-obese individuals ("atypical IIH patients") who had used an exogenous substance had a higher rate of IIH occurrence than the more "typical" (*i.e.* overweight or obese) IIH patient. *Id.*, at 149:3-12.

When presented in her deposition of February 8th, 2018 with an identical hypothetical situation to that of the *Weilbrenner* Plaintiff – *i.e.*, an obese young woman of childbearing age who used Mirena instead of minocycline, suffered PTC, and then stopped using Mirena -- Dr. Newman simply refused to apply the same logic or method to reach the same conclusion: that levonorgestrel-containing Mirena can "more likely than not" precipitate PTC. Ex. A, Newman 2018 Dep. at 149:13-154:10. Instead, she came up with excuses as to why she is unable to conclude that Mirena could, more likely than not, precipitate PTC:

- "The epidemiology does not support Mirena." *Id.; see also* Section IV, *infra*. However, Dr. Newman also testified that "[t]he rarer the event, the smaller the role epidemiology can play. *Id.* at 117:21-118:20. As she explained in the *Weilbrenner* deposition, "If

something happens very, very infrequently, an epidemiological study is not going to be helpful to you at all. Individuals can have idiosyncratic reactions that are caused by an exogenous substance." *Id.,* at 118:5-13 and *Id.* at Ex. J at 68.

- "[T]he literature and the body of evidence for minocycline and IIH" is "opposite" that of Mirena because of the difference in user demographics. Ex. A, Newman 2018 Dep. at 151:4-153:19. Dr. Newman maintained that two case-control studies on minocycline and IIH included thinner women and men, so there is a "difference in demographic profile" than seen in Mirena users. *Id.* However, Dr. Newman mistakenly presumes that all Mirena users are overweight or obese. *See* Section IV, *infra; see also* Section II. A, *supra*, discussing the insufficiencies in Dr. Newman's review of the "body of evidence" regarding Mirena and PTC. She also testified that a case-control study, while attempting to control for or account for confounding factors, is "again, not very helpful if we're talking about rare or idiosyncratic events." *See Id.* at 126:25-127:8 and Ex. J, Newman 2009 Dep. at 92:13-23.
- "I don't know when that Mirena was placed." Ex. A, Newman 2018 Dep. at 152:19-153:7. Even when the hypothetical was revised to include the fact that Mirena was placed and within six months, the patient experienced headaches and underwent evaluation for PTC, "I would not be able to say more likely than not if that person is the exact demographic of everyone else of my IIH patients… there is nothing about them that specifically makes me think this is different than just run-of-the-mill IIH." *Id.,* at 153:20-154:10. Again, Dr. Newman presumes that all PTC patients are alike, and that all Mirena users who suffer PTC are overweight or obese. When pressed further regarding a

hypothetical Mirena user, if a thin woman who used Mirena developed IIH, Dr. Newman indicated "that may be a compelling case report." *Id.*, at 156:4-157:22.

With all of her inconsistent and self-contradictory assertions regarding aspects of evidence to be considered according to Bradford Hill, or even her own differential diagnosis technique that she applied in *Weilbrenner*, it is evident that Dr. Newman has no consistent and reliable method for determining whether exogenous substances, including levonorgestrel-containing Mirena, can more likely than not cause, contribute to, or precipitate PTC in its users. Given her prior testimony and conclusions in *Weilbrenner*, it is perplexing that she cannot use the same process to reach similar conclusions regarding Mirena users who have suffered PTC.

C. Dr. Newman Failed to Consider Her Own Data for Inclusion in the "Body of Evidence"

Interestingly, in Dr. Newman's actual clinical practice at Emory, she maintains a database of patients that can be mined to help answer questions, even if informally or out of intellectual curiosity, regarding associations between exogenous substances, such as levonorgestrel, and PTC. Her database contains diagnostic coding of all IIH patients with a code of "157." *Id.*, at 44:17-21 and 45:9-15. On one hand, she takes a complete medical history, including asking female patients about contraception and type of contraception, which are recorded in her database. *Id.*, at 47:3-13. On the other hand, while admitting that her database would probably include some Mirena users, she asserted that looking at her own database of such information pertaining to IIH patients that she has treated simply "has not come up." *Id.*, at 50:5-19 and 48:24-49.9. When pressed as to why she has not reviewed potential relevant information to which she has access, she then stated that "no one asked her to perform a study" (*Id.*, at 50:5-19), and that she did not systematically obtain or maintain a history on her IIH patients' use of

Mirena or any specific contraception until after her 2014 engagement as a paid expert in this litigation on behalf of Bayer. *Id.,* at 231:14-234:2. Instead, Dr. Newman's "body of the evidence" review was limited to a review of publications, some adverse event information provided by Bayer's counsel, and the reports of Plaintiffs' experts. *See* Ex. K, Newman Rpt., Appendix B. Although she has access to her institution's database of approximately 1,500 IIH patients designed to be "mined" for research, she did not search this database in support of the opinions she forwards in this litigation and likened any search of this database as a "study" or "research." Ex. A, Newman 2018 Dep. at 44:17-21, 50:5-19, and 51:4-14.

Simply stated, Dr. Newman did not use or explain a scientific method of gathering and weighing evidence that was not arbitrary but was based on methods of science. *In re Zoloft (Sertraline Hydrochloride) Prods. Liab. Litig.*, 858 F.3d 787, 796 (3d Cir., 2017). Failing to articulate the actual methodology of her "body of the evidence" review, Dr. Newman's report and testimony reveal that her causation opinions are grounded on her *ipse dixit* conclusion drawn from what she read, written by others, that a causal relationship between Mirena and IIH has not been established. If she did apply a "weight of the evidence" analysis, she failed to demonstrate actual methodology, rather than a conclusion-oriented processed based solely on the review of published literature. Even when asked to do so, she would not apply a methodology consistent with her methodology when she testified in 2009 as an expert in another case, where she concluded that an exogenous agent was more likely than not the precipitating cause of an obese female patient's IIH. As such, the unidentified methodology Dr. Newman employed to conduct her analysis regarding PTC and levonorgestrel is inconsistent and unreliable, and Dr. Newman should be precluded from opining in this case regarding causation.

II. Dr. Newman's Causation Opinions are Inadmissible Because She Materially Misrepresented Plaintiffs' Expert Reports That She Challenges

Dr. Newman's expert report is both wrought with material misrepresentations or misinterpretations of some of Plaintiffs' experts' opinions, as well as failure to even mention other of Plaintiffs' experts' opinions. Her failure to critically evaluate Plaintiffs' experts' opinions, as well as the literature or other evidence upon which they rely, demonstrates further that she has not applied a scientific method of weighing *all* the evidence pertinent to causation. For example:

- Dr. Newman misrepresented Plaintiffs' expert Dr. Johanson when she wrote that he said progesterone decreases CSF production and has an inhibitory effect on raised intracranial pressure. *See* Ex. K, Newman Rpt. at 11.
- Dr. Newman misrepresented that Plaintiffs' expert Dr. Salpietro when she wrote that he said progesterone's effect on CSF production is excitatory. *See Id*. Dr. Salpietro did not say progesterone had an excitatory effect on CSF production.
- Dr. Newman misrepresented Plaintiffs' expert Dr. Wheeler when she wrote that his report conflicts with Plaintiffs' expert Dr. Moye statement that he is not aware of any clinical evidence that Mirena is used more commonly in obese women. *See Id.* Dr. Wheeler made no reference to clinical evidence that Mirena is used more commonly in obese women. Dr. Wheeler simply made a personal observation that preferential prescribing of Mirena for obese women is potential. This in no way conflicts with Dr. Moye's actual opinion, which is that there is no observational evidence showing that Mirena users are actually more overweight or obese, just scattered reports of particular populations with limitations for each study. *See also* Section IV, *infra.*

- Dr. Newman misrepresented that Plaintiffs' experts suggest that, since IIH occurs in reproductive aged women, its etiology must be hormonal. *See Id*. No Plaintiffs' expert said that PTC "must be hormonal" based upon the fact that it occurs more commonly in reproductive aged women.

Furthermore, Dr. Newman failed to thoroughly discuss the pathophysiology of IIH or the actions of levonorgestrel yet made no effort to grapple with the well-accepted interactions of CSF and the choroid plexus, or of hormones and CSF. *See* Plaintiffs' Omnibus Motion at Section V. Her offering of both misrepresentations of Plaintiffs' experts' opinions, as well as unsupported general remarks and conclusory statements does not render her opinions regarding these topics either reliable or relevant. The Court "is charged with 'the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand.'" *Amorgianos*, 303 F. 3d at 265, *quoting Daubert*, 509 U.S. at 597, and *citing, in accord, Campbell*, 239 F.3d at 184 and Federal Judicial Center, Reference Manual on Scientific Evidence 11 (2d ed. 2000). Dr. Newman's commentary fails the basic requirement that an expert's opinion have probative value, and her opinions regarding Plaintiffs' experts are entirely inadmissible, or should be limited to only issues which she has both accurately and thoroughly addressed in her report.

III. Dr. Newman's Causation Opinions Are Inadmissible Because She Failed to Connect Select Observations Reported in Medical Literature to Her Broad Opinions

Dr. Newman proclaims to be an expert, with respect to neuro-ophthalmologic disorders, in the following: epidemiology, sex hormones, pharmacokinetics, and pharmacodynamics. Yet, she has engaged in no specialized training, advanced degrees, research or publications regarding these areas. *See, generally*, Ex. A, Newman 2018 Dep. and at 21:18-23:10. She has also not

previously given expert opinion in any of these areas. *Id.* Nevertheless, Dr. Newman's expert report and deposition testimony are replete with assertions and conclusions regarding the rates of obesity, preferential use of Mirena in overweight and obese women, and oral contraceptives. For example:

- Dr. Newman concludes that Mirena users are more overweight or obese than the general population. *See* Ex. K, Newman Rpt. at 5. This conclusion is not supported by scientific evidence.
- Dr. Newman concludes that oral contraceptives do not cause PTC. *See* Ex. K, Newman Rpt. at 5-6. This conclusion is not supported by scientific evidence.
- Dr. Newman concludes that data about "oral contraceptives" in general can be applied to levonorgestrel. *See Id*. This is not supported by scientific evidence.
- Dr. Newman concludes that data about oral contraceptives containing levonorgestrel and an estrogen component can be applied to levonorgestrel alone, as in Mirena. *See Id*. This is not supported by scientific evidence.

Dr. Newman alleges that Mirena is used "preferentially" by women of reproductive age who are obese or overweight. She has no expertise in the rate of Mirena use in any population, and her opinions on this topic should be excluded. Dr. Newman's knowledge on this topic is limited to her interpretation of two papers: Peipert 2011 and Saito-Tom 2015. Peipert 2011 is a review of "satisfaction and continuation rates" among IUDs and implants from the CHOICE study in the St. Louis region. The authors of this review never quantified how Mirena users were more overweight or obese, nor did it attempt to generalize its results to the U.S. population as a whole. The study encouraged LNG IUD use, study subjects likely participate to obtain LNG IUDs, and the providers were biased towards LNG IUD. Saito-Tom 2015 was a study of "LNG-

IUD Use In Overweight and Obese Women" at a single clinic in Hawaii. The authors made no attempt to show Mirena users are more frequently overweight or obese, and admitted that the study lacked statistical power to even accomplish its objective, which was to see if there were statistically significant differences in IUD continuation based on BMI. *See* Omnibus Brief at Section V.

Furthermore, regarding oral contraceptives, Dr. Newman cites to Etminan 2015 to assert that there is no difference between the two oral contraceptives and Mirena based on a disproportionality analysis, yet she failed to address Dr. Friedman's 2016's criticisms of this "egregious" study. *See* Ex. K, Newman Rpt. at 8-9, and Ex. A, Newman 2018 Dep. at 198:16-200:6. She also failed to note how all of the studies that she relied upon to support a lack of association between oral contraceptives and PTC lack statistical significance. For example, Dr. Newman cited to Digre 1984, Durcan 1988, Ireland 1990, Giuseffi 1991, Radhakirishnan 1993, and Kilgore 2017, but did not expound upon the unreliability of those publications. *See* Ex. K, Newman Rpt. at 5; *see also* Omnibus Brief at Section IV.

Finally, Dr. Newman opined that the Valenzuela 2017 publication is essentially meaningless, opining that the study does not even show that Mirena use was associated with an increased risk of IIH. *See* Ex. K, Newman Rpt. at 9-10; *see also* Plaintiffs' Omnibus Motion at Section V. During her deposition, Dr. Newman claimed that the Valenzuela study was "highly improperly done," yet has made no criticisms of it nor discussed her concerns with the authors. Ex. A, Newman 2018 Dep. at 218:3-24. She asserted that when adjustments are made, the elevated odds ratio disappears, and that she performed these calculations "in her head" and then threw them away. *Id.* at 228:22-229:17. She did not include them in her report because "they are so self-evident." *Id.* Yet, when asked to perform these "self-evident" calculations during her

depositions, she indicated that she would need the publications by Cibula, Boulet, Sanders and Lindh to do so, and agreed to supplement her report with her calculations. *Id.* at 229:18-231:3. Without any attempt to explain the quantitative numbers that support her qualitative conclusions regarding Valenzuela 2017, Dr. Newman's opinion that the study did not prove an association between levonorgestrel-containing IUDs and PTC should be barred.

CONCLUSION

Simply stated, the Federal Rules of Evidence, *Daubert* and its progeny, and Southern District of New York case law instruct that Dr. Newman's opinions in this case should be barred. Despite her self-proclaimed expertise in the Bradford Hill methodology, Dr. Newman failed to demonstrate an application of this methodology, or *any* scientific method of the weighing of all of the evidence, failed to consider aspects of what she refers to as the "body of evidence," including opinions of Plaintiffs' experts and the evidence upon which they rely, and failed to connect select evidence to her broad opinions in this case. Dr. Newman's opinions in this case, merely *ipse dixit*, should be precluded or narrowly limited.

Dated: March 2, 2018

Respectfully submitted,

/s/ Lawrence L. Jones II
Lawrence L. Jones II
Jones Ward PLC
Co-Lead Counsel for Plaintiffs

Martin D. Crump
Davis & Crump PC
Co-Lead Counsel for Plaintiffs

Maxwell S. Kennerly
Kennerly Loutey, LLC
Liaison Counsel for Plaintiffs

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was filed via the ECF/CM system with the Clerk of the Court, which will have sent notice to all attorneys of record in this matter on March 2, 2018.

/s/ *Lawrence L. Jones II*
Lawrence L. Jones